### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-026036 Address: 333 Burma Road Date Inspected: 20-Jul-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** N/A **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Trial Assembly

# **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 13BW to Segment 13CW (Edge Beam to Edge Beam)

This QA Inspector performed Dimension Control Inspection on the Edge Beam to Edge Beam at Work Point W13 (Counter Weight side) and at Work Point W14 (Cross Beam side) for the Segment 13BW to Segment 13CW between Panel Point (PP) 122 to PP 122.5 at the following locations:

The offset was measured at 5 (five) different locations in which 2 (Two) locations were at Flange area and 3 (Three) locations were at Web area. The QA Inspector measured the Offset using 1(One) Meter Straight Edge.

The Sweep was measured at 100 mm from both sides of the Floor Beam and 800mm from both sides of floor Beam and at Center (Total 5 Locations) using string line.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

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Segment 13BE to Segment 13CE (Skin Flatness)

This QA Inspector performed Dimensional Inspection, to check the skin flatness between Segment 13BE to Segment 13CE between Panel Points (PP) 122 and PP 122.5 at the following locations:

The skin flatness was measured on North side (Cross Beam Side at B1 and B2 locations) and South side (Bike Path Side at B3 and B4 locations) at 100mm from the weld connecting Bottom Panel to Side Panel using 5000mm string line to verify overall flatness. The straight edges of 600mm and 630 mm of length were also used to measure the localized flatness.

The skin flatness was measured on North side (Cross Beam side at T1 location) and South side (Bike Path Side at T2 location) at 100mm from the weld connecting Deck Panel to Edge Panel using 2500mm string line to verify overall flatness. The straight edges of 600mm and 630 mm length were also used to measure the localized flatness.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 13BW to Segment 13CW (Skin Flatness)

This QA Inspector performed Dimensional Inspection, to check the skin flatness between Segment 13BW to Segment 13CW between Panel Points (PP) 122 and PP 122.5 at the following locations:

The skin flatness was measured on North side (Counter Weight side at T1 location) at 100mm from the weld connecting Deck Panel to Edge Panel using 2500mm string line to verify overall flatness. The straight edges of 600mm and 630 mm length were also used to measure the localized flatness.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 14 East (Bottom Panel)

This QA Inspector was requested by ZPMC QC and ABF QA to perform the inspection for distorted Bottom Panel at work point E3 (Bike Path side). Incident Report was generated for the distorted Bottom Panel on July 13, 2011, Viz., 04-0120F4\_TL-15\_B278\_07-13-2011\_14East\_Bottom Panel\_Distorted\_WP\_E3.

The inspection was performed and observed 6mm distortion at Y= location 6560mm and 6.2mm distortion at Y=location 8760mm.

Please reference the pictures for more comprehensive details.

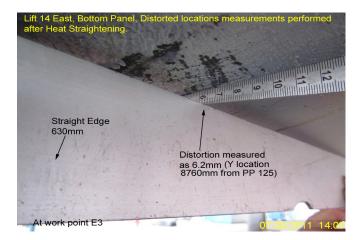
The measurements were conveyed to the Lead Inspector and Engineer for review and disposition.

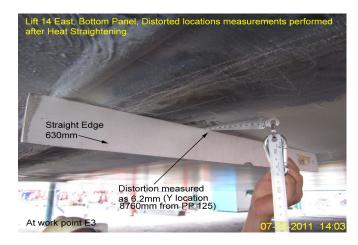
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

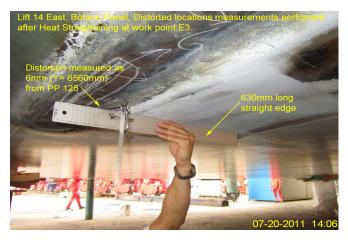
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#### documents.









### **Summary of Conversations:**

No relevant conversations were reported on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math, Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer